

CLAIMS

What is claimed is:

- 1 1. An optical transmission apparatus
2 having a plurality of ports for transmitting and/or receiving one or more signals
3 substantially as defined at IEEE 1394;
4 at least one of the ports being for transmitting and/or receiving one or more optical
5 signals; and
6 signal transmission protocol conversion being carried out at the physical-layer level
7 on at least one of the signals transmitted and/or received by at least one of the ports;
8 wherein the optical transmission apparatus comprises one or more bus management
9 means for co-managing one or more signal buses respectively connected externally to at
10 least a portion of the ports.
- 1 2. An optical transmission apparatus according to claim 1 further comprising
2 one or more application-level protocol conversion means for carrying out signal
3 transmission protocol conversion at the application level.
- 1 3. An optical transmission apparatus according to claim 2 wherein
2 at least one of the application-level protocol conversion means carries out conversion
3 between or among one or more DV-format signal transmission protocols and one or
4 more MPEG-2TS-format signal transmission protocols.
- 1 4. An optical transmission apparatus according to claim 2 wherein
2 at least one of the application-level protocol conversion means carries out conversion
3 between or among one or more 1-bit audio signal transmission protocols and one or more
4 multi-bit audio signal transmission protocols.
- 1 5. An optical transmission apparatus according to claim 4 wherein
2 at least one of the multi-bit audio signal transmission protocol or protocols is
3 substantially as defined at IEC 60958.
- 1 6. An optical transmission apparatus according to claim 4 wherein
2 at least one of the multi-bit audio signal transmission protocol or protocols is
3 substantially as defined at MPEG Audio Layer-3.

- 1 7. An optical transmission apparatus according to claim 2 wherein
2 one or more of the application-level protocol conversion means take the form of one
3 or more replaceable modules.
- 1 8. Electronic equipment comprising one or more optical transmission apparatuses
2 according to any of claims 1 through 7.